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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/379,646	08/23/1999	DAVID M. LILENFELD	FM-1999:01	1549

7590 03/21/2002

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EXAMINER

NGUYEN, JIMMY H

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 03/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/379,646

Applicant(s)

LILENFELD, DAVID M.

Examiner

Jimmy H. Nguyen

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/11/2002 has been entered. An action on the RCE follows:

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed feature, "a scroll wheel" recited in claim 16, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. It is noted that the supplemental amendment entered as paper No. 11 does not include an amended drawing. The amended drawing must show the changes in red ink.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Bidiville et al. (USPN: 5,578,817).

As per claim above, the claimed invention reads on Bidiville et al. follows: Bidiville et al. disclose the same device as claimed noting figure 20A which shows a body including an elevated upper housing (2005) corresponding to the claimed convex palm surface; a lower housing (2010) corresponding to the claimed substantially planar base; a ball (710) (col. 25, lines 5-11) corresponding to the claimed roller ball; three buttons (2020A, 2020B and 2020C) corresponding to the claimed keys; and a line interface (560) (fig. 5A and col. 12, lines 10-13; or a standard serial communications such as RS 232, col. 5, lines 41-51) corresponding to the claimed communicator. Further, as noting in figure 20a, Bidiville et al. also teach each key having a portion that defines part of the frontal curvature of the body. The elements in the claims are read in the reference.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bidiville et al.

As per claims above, as noting figure 20A, such an arrangement permits the thumb to rest naturally over the ball, while also permitting the index, center and ring fingers to rest over the buttons. Furthermore, one skilled in the art would obviously recognize that such an arrangement obviously permits the thumb to rest naturally over the ball, while also permitting the index and center fingers to rest over two buttons and the ulnar fingers to wrap around the side of the body

opposite the ball, as claimed. Therefore, these claims are rejected for the reason as set forth above.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bidiville et al. as applied to claim 15 above, and further in view of Adams et al. (USPN: 6,031,518).

As per claim 16, Bidiville et al. discloses the claimed device except for the scroll wheel. However, Adams et al. teaches a related ergonomic device (fig. 1) comprising a scroll wheel (34) for scrolling the windows on the computer screen up and down as known by one skilled in the art (col. 1, lines 39-47). Furthermore, a scroll wheel disposed between the enter key and the drag key, for permitting the up and down scrolling of windows is well-known to one skilled in the art (see specification of the pending application, page 17, lines 21-22).

It would have been within the level skill in the art to substitute the middle key of Bidiville et al. for the scroll wheel of Adams et al. because this would allow a user easily to scroll the windows on the computer screen up and down, as known by one skilled in the art. This claim is therefore rejected for the reason as set forth above.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bidiville et al. as applied to claim 12 above, and further in view of Harding et al. (USPN: 6,184,869).

As per claim 17, as described above, Bidiville et al. teaches a communicator, i.e., a line interface (560) (see fig. 5A and col. 12, lines 10-13), or a standard serial communications such as RS 232 (col. 5, lines 41-51). However, one skilled in the art would recognize that RS 232 standard serial communications including a cable is well-known to one skilled in the art.

Furthermore, Harding et al. discloses a related cursor control device (10) (see fig. 1) comprising a communicator which may be one of electrical cable (20) (fig. 1), or radio frequency transmission or infrared transmission (col. 5, lines 7-11).

It would have been obvious to one skilled in the art to provide an electrical cable of Harding et al. in the device of Bidiville et al. so as to allow the data transmitted from the input device to the computer, as taught by Harding et al. (col. 5, lines 7-11).

Therefore, it would have been obvious to combine Harding et al. with Bidiville et al. to obtain the invention as specified in claim above.

10. Claims 12-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koh et al. (USPN: 5,122,654) in view of Harding et al..

As per claims 12-15 and 17, Koh et al. discloses a device (see fig. 1) comprising a body including an elevated portion (70) corresponding to the claimed convex palm surface (col. 3, lines 19-35); a lower housing (30) corresponding to the claimed substantially planar base; three buttons (50a, 50b, 50c) corresponding to the claimed keys; a cord and a connector (60) corresponding to the claimed communicator (col. 2, lines 65-68); and a ball (40) displaced substantially to the left of the lateral midpoint of the trackball (col. 3, lines 3-5). Koh et al. further Koh et al. further teach each key defining part of the frontal portion of the body (see fig. 1) and such arrangement permitting the thumb to rest naturally over the ball, while also permitting the index, center and ring fingers to rest over the buttons (fig. 1, col. 3, lines 11-15). Furthermore, one skilled in the art would recognize that such arrangement obviously permits the thumb to rest naturally over the ball, while also permitting the index and center fingers to rest over two buttons and the ulnar fingers to wrap around the side of the body opposite the ball, as

claimed. Accordingly, Koh discloses the claimed device except for the roller ball being positioned toward the forward portion of the body and the frontal curvature of the body.

However, Harding et al. disclose a related cursor control device (10) including a roller ball (50/116) being positioned toward the forward portion of the body (see figs. 2 and 6).

Furthermore, it would have been an obvious matter of design choice to relocate the ball of Koh et al., since a such modification would have involved a mere change in the location of a component. A change in location is generally recognized as being within the level of ordinary skill in the art **In re Japikse, 86 USPQ 70 (CCPA 1950)** and as being taught by Harding et al., since the operation of the device would not thereby be modified.

Further, the combination of Koh et al. and Harding et al. does not disclose expressly the frontal curvature of the body. However, absent a showing of criticality it would have been within the level of skill in the art and obvious to one having ordinary skill to engineering design the shape an element as desired as was judicially recognized in re Dailey, 149 USPQ 47 (CCPA 1976), i.e., in this particular case, to make the front portion of the body to be curved as claimed. Therefore, these claims are rejected for the reason as set forth above.

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koh et al. in view of Harding et al., as applied to claim 15 above, and further in view of Adams et al..

As per 16, Koh et al. in view of Harding et al. discloses the claimed device except for the scroll wheel. However, Adams et al. teaches a related ergonomic device (fig. 1) comprising a scroll wheel (34) for scrolling the windows on the computer screen up and down as known by one skilled in the art (col. 1, lines 39-47). Furthermore, a scroll wheel disposed between the enter

key and the drag key, for permitting the up and down scrolling of windows is well-known to one skilled in the art (see specification of the pending application, page 17, lines 21-22).

It would have been within the level skill in the art to substitute the middle key of Koh et al. for the scroll wheel of Adams et al. because this would allow a user easily to scroll the windows on the computer screen up and down, as known by one skilled in the art. This claim is therefore rejected for the reason as set forth above.

Response to Arguments

12. Applicants' arguments filed 05/24/2001, have been fully considered but they are not persuasive because as follows:

In response to applicants' argument filed "Bidiville does not disclose, teach or suggest "at least one key mounted in the forward portion of the body, the key having a fingertip portion that defines a part of the frontal curvature of said body", page 8, lines 11-13, as described above, as noting in figure 20a, Bidiville et al. teach each key having a portion that defines part of the frontal curvature of the body.

In response to applicants' argument that the reference fails to show certain features of applicants' invention, it is noted that the features upon which applicants state "As claimed, ... the user may easily and conveniently activate the keys 12 and 14 as required through **the natural inward flexing motion of the fingers or fingertips**, without the unnatural downward motion typically demanded of existing prior art devices", page 8, last paragraph, is not recited in the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

In response to applicants' argument filed "Koh does not disclose, teach or suggest "at least one key mounted in the forward portion of the body, the key having a fingertip portion that defines a part of the frontal curvature of said body", page 12, lines 6-8, as described above, as noting in figure 1, Koh et al. further teach each key defining part of the frontal portion of the body (see fig. 1) and does not teach the frontal portion being curved. However, it would have been an obvious matter of design choice to to engineering design the shape a frontal portion to be curved as desired as was judicially recognized in re Dailey, 149 USPQ 47 (CCPA 1976) since the operation of the device would not thereby be modified in this particular case.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Art Unit: 2673

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JHN

March 15, 2002



BIPIN SHALWALA
SENIOR PATENT EXAMINER
TECHNOLOGY CENTER 2600